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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SIMITOSKI, MICHAEL J

ART UNIT PAPER NUMBER

2134

DATE MAILED: 11/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/963,261

Applicant(s)

MORIMOTO, SHINICHI

Examiner

Michael J. Simitoski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. The response of 9/1/2006 was received and considered.
2. Claims 1-10 are pending.

### ***Response to Arguments***

3. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection. Any comments deemed pertinent to the rejections below, are discussed. It is noted that the Examiner, while referring to the 102 rejections over Cropper in the 103 rejections based on Cropper and additional references, has omitted the recitation of the Cropper 102 rejection. Therefore, they are re-included and **THIS REJECTION IS MADE NON-FINAL**. It is further noted that Applicant has responded to, for example, the rejections of claims 9 and 10 over Cropper in view of Peck and states that Pack fails to cure the deficiencies in Cropper discussed above. However, Applicant has provided no discussion of Cropper.

4. Applicant's response (p. 3) argues that the wireless base station asks an inner LAN authenticating server to authenticate a wireless terminal – the authentication performed without a request issued from the base station. From this citation, Applicant suggests that the specification clearly discloses the negative limitation recited in the claims, reciting that the base station does not broadcast authentication information. However, because the specification discloses an example or embodiment where there is no disclosure of the base station broadcasting authentication request information does not mean that the specification provides written description that explicitly not broadcasting authentication request information from the base

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station is or was a feature of the invention, such that the invention has novelty or non-obviousness based on its base station not broadcasting authentication request information.

5. Applicant's response (p. 4) argues that neither Jones nor Decasper disclose that the base station does not broadcast the authentication request information. However, Jones discloses (col. 3, lines 20-37) that the base station/access operator RADIUS authentication server does not broadcast the authentication request information.

6. Applicant's response (p. 4) argues that Jones fails to disclose transmitting the packet received from said introduced portion to said predetermined server network connecting device when said contents of said first package distribution table represented the terminal station has not been authenticated for said LAN. However, Jones teaches that if the access operator RADIUS authentication server recognizes that the packet has not been authenticated (contains a new user designation), the INC is informed and sets up a connection such that the packet is actually sent to a new user registration server. Decasper is cited for teaching the use of a table to expedite the decision, as discussed in the office action.

7. Applicant's response (p. 4) argues that Jones is merely a login procedure. However, as seen in col. 3, lines 20-37, unregistered packets are sent – this is how the initial registration is completed online.

8. Applicant's response (p. 5) argues that the authentication request information does not correspond to the new user of Jones and that the reception packet does not correspond to the new user of Jones. However, Applicant gives no factual basis for this. Further, Applicant argues that the RADIUS performs authentication for accessing the registration server and not the managed

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IP network. However, as the registration server exists on a protected IP network, it is maintained that this limitation is met.

9. Applicant's response (p. 5) argues that the assertion that "transferring the packet received from the interface portion to the LAN" does not correspond to "transferring the packet to the managed IP network". However, once the server receives the packet, makes the decision and instructs the INC, the packet is not re-transmitted in the Jones reference. It is maintained that one having ordinary skill in the art would interpret the fact that no retransmission has occurred to mean that the INC is instructed to forward the packet to the registration element from the authentication server.

#### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

11. It is noted that Applicant's amendments to the claims are not in compliance with 37 CFR 1.121(c). For example, claims 5 and 9 are recited with the status identifier "Original", yet appear to be amended. The response has been considered as a bona fide attempt, however, any further submissions not compliant with 37 CFR 1.121(c) will be treated as such, according to MPEP §714.

12. Regarding the amended limitation, Jones does disclose broadcasting the authentication request information/new user (col. 3, lines 20-37).

#### ***Claim Rejections - 35 USC § 112***

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13. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

14. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification does not describe wherein the base station does not broadcast the authentication request information.

***Claim Rejections - 35 USC § 102***

15. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16. Claims 1-2 & 5-6 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,819,178 to **Cropper**.

Regarding claims 1 & 5, Cropper discloses a base station/MS,HLR,VLR,ISR (Fig. 4, #113,121,130 [home]) comprising an interface portion (Fig. 6, #112) for making a communication with a terminal station/MS (Fig. 6, #500) and extracting authentication request information/call request and a reception/registration packet therefrom (col. 4, lines 35-65), a first authentication managing portion/HLR for determining whether or not to authenticate said

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terminal station for said LAN/Visited network (Fig. 6, #100) corresponding to said authentication request information/call request received from said interface portion (Fig. 3A & col. 4, lines 35-57) and setting a result of the determination (Fig. 3C) to a first packet distributing table/HLR/ISR (Fig. 6, #130) and a first packet distributing portion/HLR/ISR (Fig. 6, #130) for referencing registered contents of said first packet distributing table/HLR/ISR (Fig. 6, #130 & col. 6, lines 36-38) for the packet received from said interface portion (col. 5, lines 12-18), transferring the packet received from said interface portion to said LAN/Visited network (Fig. 6, #100 & col. 6, lines 47-52) when said contents of said first packet distributing table represent that said terminal station has been authenticated for said LAN (HLR or VLR authenticates MS previously, completed registration) (Fig. 3A), and transmitting the packet received from said interface portion to said predetermined server or network-connected device/VLR (Fig. 6, #430 & col. 5, lines 35-41) when said contents of said first packet distributing table represent that said terminal station has not been authenticated for said LAN (Fig. 3B, process A, col. 5, lines 19-23 & lines 35-40), wherein the base station does not broadcast the authentication request information (col. 6, lines 47-52).

Regarding claim 2 & 6, Cropper discloses a second authentication managing portion/ISR (Fig. 6, #130), a second packet distributing portion/ISR (Fig. 6, #130) and a second packet distributing table/ISR (Fig. 6, #130) for storing a plurality of destinations/addresses, wherein said second authentication managing portion/ISR is configured for determining whether or not to authenticate said terminal station/MS (Fig. 6, #500 & col. 5, lines 19-23) corresponding to said authentication request information and setting a result of the concerned determination to said second packet distributing portion/ISR (col. 5, lines 19-23, Fig. 3C, process C & Fig. 6, #130)

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when the result of the determination of said first authentication managing portion represents that said terminal station has not been authenticated for said LAN/Visited network (Fig. 6, #100), wherein said first packet distributing portion/VLR (Fig. 6, #130) is configured for transferring the packet received from said terminal station/MS (Fig. 6, #500) to said second packet distributing portion/ISR (col. 5, lines 12-23 & Fig. 6, #130) when said registered contents/subscriber data of said first packet distributing table/VLR (Fig. 6, #130) represent that said terminal station has not been authenticated for said LAN/Visited network (Fig. 6, #100), and wherein said second packet distributing portion/ISR (Fig. 6, #130) is configured for referencing the registered contents of said second packet distributing table/ISR (Fig. 6, #130) for the packet received from said first packet distributing portion/VLR (col. 5, lines 12-23 & Fig. 6, #130) and transmitting the packet received from said terminal station to an appropriate server or network-connected device/Home HLR (Fig. 6, #430) corresponding to a destination/address to which the packet is distributed (col. 5, lines 19-23 & lines 35-40).

### ***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

18. 10. Claims 1, 3, 5 & 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,873,609 to Jones et al. (**Jones**) in view of "Router Plugins: A Software Architecture for Next Generation Routers" by Decasper et al. (**Decasper**). Jones discloses a base



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station/access operator RADIUS authentication server (col. 3, lines 20-37) including an interface portion for making a communication with a terminal station/PC and extracting authentication request information/new user and a reception packet/new user therefrom (col. 3, lines 20-37), a first authentication managing portion/RADIUS for determining whether or not to authenticate said terminal station for a LAN/managed IP network (Fig. 1, #31) corresponding to said authentication request information received from said interface portion, transferring the packet received from said interface portion to said LAN/managed IP (col. 3, lines 20-37) when said terminal station has been authenticated for said LAN, and transmitting the packet received from said interface portion to said predetermined server or network-connected device/Access Operators registration server (col. 3, lines 20-37) when said terminal station has not been authenticated for said LAN (col. 3, lines 20-37), wherein said base station/access operator RADIUS authentication server does not broadcast the authentication request information. Jones lacks setting a result of the determination to a first packet distributing table and a first packet distributing portion for referencing registered contents of said first packet distributing table for the packet received from said interface portion and consulting the first packet distributing table for terminal authentication. However, Decasper teaches that high performance is achieved in a network decision device by storing the result of a determination in a cache and consulting the cache for result rather than the re-examining/authenticating (§3, 6 & P. 5, 2). By doing so, rather than authenticating each of Jones's packets, if the determination that the packet has been authenticated or denied authentication by the registration server, the cache is updated with the result and consulted. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to set a result of the determination to a first packet

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distributing table/cache and to include a first packet distributing portion for referencing registered contents of said first packet distributing table/cache for the packet/new user received from said interface portion and consulting the first packet distributing table/cache for terminal authentication. One of ordinary skill in the art would have been motivated to perform such a modification to achieve high performance, as taught by Decasper (§3, 6 & P. 5, 2).

19. Claims 3-4 & 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cropper**, as applied to claims 1-2 & 5-7 above, in further view of U.S. Patent 6,397,056 to Bugnon et al. (**Bugnon**). Cropper lacks issuing an authentication request to an inner LAN authentication server and setting a response to the authentication request in the packet distribution table. However, Bugnon teaches that in order to reduce fraud in radio telecommunications networks, networks include an authentication center, which is normally co-located with the HLR (col. 1, lines 27-30). Each subscriber has an authentication key, which is used to authenticate the mobile terminal (col. 1, lines 31-45, col. 2, lines 47-64 & Fig. 5). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cropper to issue an authentication request to an inner LAN authentication server and setting a response to the authentication request in the packet distribution table, instead of using plaintext identifiers. One of ordinary skill in the art would have been motivated to perform such a modification to reduce fraud in radio telecommunications networks, as taught by Bugnon (col. 1, lines 31-45, col. 2, lines 47-64 & Fig. 5).

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20. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Cropper**, as applied to claim 1 above, in view of U.S. Patent 6,606,491 to **Peck**. Claims 9-10 are substantially equivalent to, for example, claims 1-2. In this regard, Cropper discloses a system, as described above, but lacks explicitly registering a refusal in the packet distributing table if the terminal station has not been authenticated. However, Peck teaches that in mobile telecommunications systems, it is known to check a blacklist of mobile numbers when authenticating to deny access not only if the terminal is not authenticated, but also if the terminal is a stolen terminal (col. 1, lines 36-46, lines 50-54, lines 58-65, col. 5, lines 4-7 & col. 8, lines 15-17). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Cropper to explicitly register an authentication refusal/blacklisted mobile terminal in the packet distributing table. One of ordinary skill in the art would have been motivated to perform such a modification to deny access if the terminal is a stolen terminal, as taught by Peck (col. 1, lines 36-46, lines 50-54, lines 58-65, col. 5, lines 4-7 & col. 8, lines 15-17).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Simitoski whose telephone number is (571) 272-3841. The examiner can normally be reached on Monday - Thursday, 6:45 a.m. - 4:15 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on (571) 272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

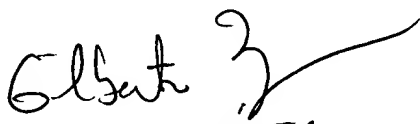
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MJS



November 9, 2006



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